

ABSTRACT OF THE DISCLOSURE

To provide a liquid discharge head, a liquid discharge apparatus, a valve protection method of the liquid discharge head, and a maintenance device.

5       The liquid discharge apparatus provided with: a discharge port for discharging liquid, a liquid flow path communicating with the discharge port having a bubble generating region for generating bubble, a discharge energy generating element for generating  
10      thermal energy for generating the bubble in the liquid inside the bubble generating region, and a liquid discharge head facing the discharge energy generating element spaced apart from the discharge energy generating element having a movable member in which an end portion at an upstream side in a flow direction of  
15      the liquid inside the liquid flow path is fixed and a down stream end thereof is a free end, in which ink is discharged from the liquid discharge head and a recording is performed by adhering the liquid on a  
20      medium to be recorded, includes: a unit for detecting an ink supply state inside the liquid flow path, and a unit for controlling or stopping the driving to the discharge energy generating element when a judgment is made that the ink is not normally supplied based on the  
25      detection result of the ink supply state inside the liquid flow path.